Exit Routes

Overview

Introduction

Escape from a fire is critical. Following OSHA's rules on Exit Routes will help ensure that if evacuation is necessary, it will run smoothly. Prior to December 9, 2002, OSHA's rules on Exit Routes (29 CFR 1910, Subpart E) were known as egress. Egress means following the EXIT signs out of the facility. EXIT signs are everywhere, and we rarely notice them until we need them.

Purpose

This module covers the requirements for a safe and efficient means of leaving a facility under emergency circumstances. 29 CFR 1910, Subpart E, covers the general requirements for a safe and efficient evacuation from a facility.

Bases for Subpart E

Subpart E comes from NFPA 101–2000, Life Safety Code. An employer who demonstrates compliance with the exit route provisions of NFPA 101-2000 will be deemed to be in compliance with the certain Subpart E requirements.


Exit routes are good to know. When fire breaks out, you won't be slow.

Key Concepts

Exit routes

Exit routes, as defined in 29 CFR 1910, are a continuous and unobstructed way of exit travel from any point within a workplace to a place of safety. An Exit route consists of three separate and distinct parts:

- The exit access: any portion of an exit route that leads to an exit

- The exit: that portion of an exit route that is generally separated from other areas to provide a protected way of travel to the exit discharge.

- The exit discharge: the part of the exit route that leads directly outside or to a street, walkway, refuge area, public way, or open space with access to the outside.
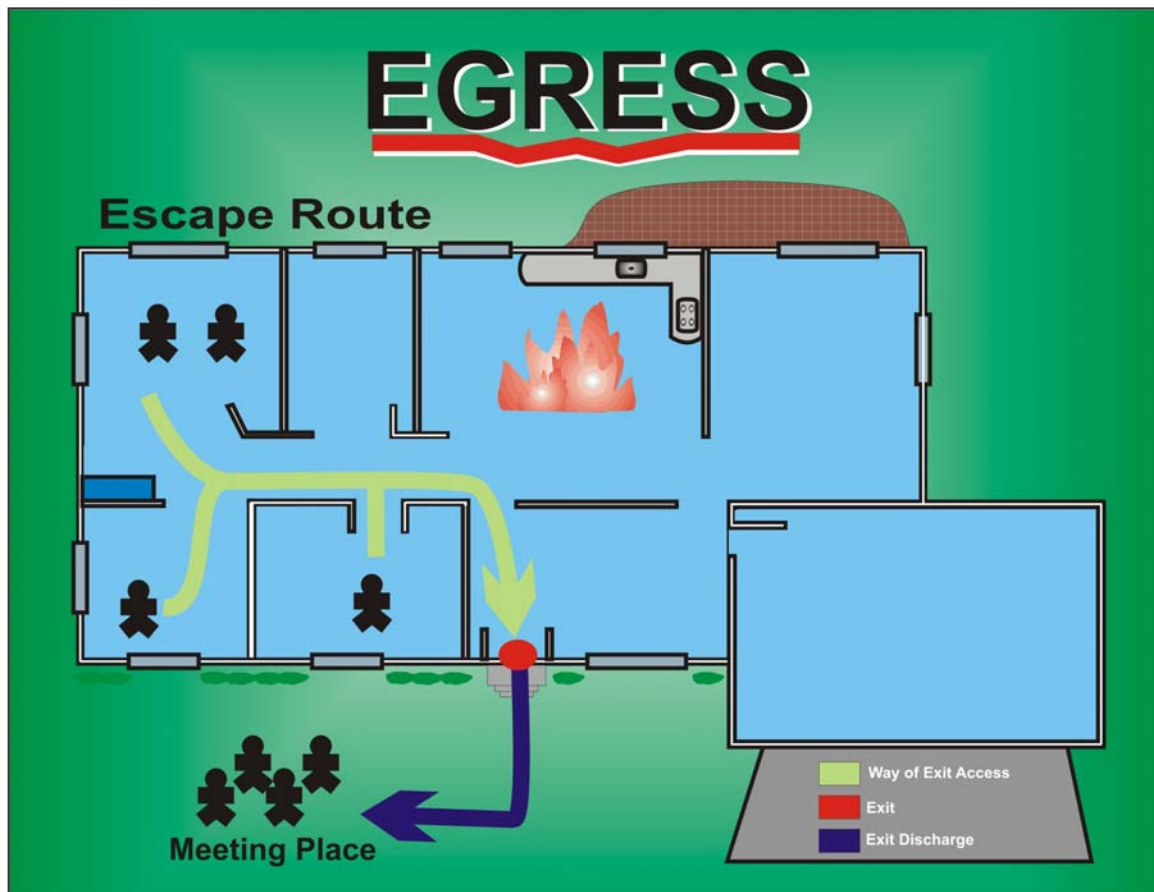
Exit Route Hazards

Introduction

　　　　Exit route hazards are those that do not allow for safe evacuation from the worksite. When identifying these hazards, look for situations that affect any portion of the exit route: exit access, exit, and exit discharge.

Examples of exit route hazards

　　　　The picture below identifies the most common exit route hazard—blocking the exit or exit route.

OSHA Regulatory Requirements

Basic requirements

There are some basic requirements we must follow when dealing with exit routes. Exit routes must

- be a permanent part of the workplace
- support the maximum permitted occupant load for each floor served
- meet minimum height and width requirements
- be kept free of explosive or highly flammable furnishings or other decorations
- be arranged so that employees will not have to travel toward a high hazard area
- be free and unobstructed
- be adequately lighted so that an employee with normal vision can see along the exit route, and
- not go through a room that can be locked, such as a bathroom.

Number of exit routes

The number of exit routes must be adequate. At least two exit routes must be available in a workplace to permit prompt evacuation of employees. The exit routes must be located as far away as practical from each other so that if one exit route is blocked by fire, or smoke, employees would still be able to evacuate safely.

A single exit route is permitted where the number of employees, the size of the building, its occupancy, or the arrangement of the workplace is such that all employees would be able to evacuate safely during an emergency.

Exit Door

Exit doors must be

- unlocked

- free of any device or alarm that could restrict emergency use of the exit route if the device or alarm fails

- a single hinged door, and

- able to swing out in the direction of travel if the room is designed to be occupied by more that 50 people.

Exit discharge

The exit discharge must

- lead directly outside or to a street, walkway, refuge area, public way, or open space with access to the outside, and

- be large enough to accommodate all who leave the building from the exit.

Exit Markings

Exit marking categories

Exit markings fall into two categories:

1. Signs or markings that clearly identify an exit, or the way to an exit.

2. Signs or markings that clearly identify doors or areas that are <u>not</u> a part of the exit route.

Requirements for exit markings

The requirements for exit markings are as follows:

1. Every <u>exit</u> shall be marked by a clearly visible sign with the word EXIT, in plainly legible letters, at least 6 inches high, and with at least a ¾ inch stroke width.

2. When the way to an exit is not readily apparent, signs or markings similar to exit signs shall be provided which also provide directional information. Where arrows are used, they shall be obvious as to the direction of the exit.

3. Doors, passageways, and stairways which are not means of exiting shall be clearly marked "NOT AN EXIT" or with other labeling to show their true character, if they may be confused with access to exits.

4. Exit signs shall be illuminated either by internal or external means by a "reliable" light source and be distinctive in color.

5. Exit signs and exit access signs must be configured and located so as to be readily visible. Other building appurtenances, such as furnishings, decorations, or equipment, are not permitted to obscure or detract from the attention value of the exit sign.

Emergency Action Plan

Introduction

In 29 CFR 1910.38, OSHA addresses the need for two separate, yet related, plans. The Emergency Action Plan (EAP) addresses all potential emergencies (tornado, hurricane, earthquake, chemical spills, etc.) that can be expected in the workplace. The Fire Prevention Plan addresses the requirements for fire emergencies only.

The EAP must be in writing, except for employers with 10 or fewer employees, where the EAP can be communicated orally to employees.

Minimum requirements

The EAP must include, at a minimum, the following elements:

- Procedures for reporting a fire or other emergency
- Procedures for emergency evacuation
- Procedures to account for all employees after an evacuation
- Procedures to be followed by employees performing rescue or medical duties
- The name or job title of employees who may be contacted for more information

Alarm system

The employer must have and maintain an employee alarm system.

Training

The employer must designate and train employees to assist in a safe and orderly evacuation of other employees.

Employees with disabilities

The EAP should address emergency procedures for those employees that are mobility impaired, even if only on a temporary basis. These procedures should include areas of refuge and development of a "buddy system."

Medical assistance

In a major emergency, time is a critical factor in minimizing injuries. Smaller places do not have a formal medical program, but they are required to have these medical and first aid services:

1. In the absence of an infirmary, clinic, or hospital in close proximity to the workplace, the employer must ensure that a person or persons are trained to render first aid.

2. Where the eyes or body of any employee may be exposed to injurious corrosive materials, eye washes or suitable equipment for quick drenching and flushing must be provided. Employees must be trained to use the equipment.

Employee reviews of the EAP

The EAP should be reviewed with the employees initially when the EAP is developed, whenever the employee's responsibilities under the EAP change, and whenever the EAP is changed.

Evacuation Plans

Types of evacuation
The EAP should establish the types of evacuation to be used in emergency circumstances. At the time of an emergency, employees should know what type of evacuation is necessary and what their role is in carrying out the EAP.

Emergency escape routes
For emergency evacuation, the use of floor plans or workplace maps clearly showing the emergency escape routes and safe or refuge areas should be included in the EAP. All employees must be told what actions they are to take in the emergency situations.

Personnel not immediately evacuated
The EAP should list in detail the procedures to be taken by those employees who must remain behind to care for essential operations until their evacuation becomes absolutely necessary.

Alarm systems
The alarm should be distinctive and recognizable as a signal to evacuate the work area or perform actions designated under the EAP. Employers need to establish an employee alarm system that complies with 29 CFR 1910.165. Alarms should be audible or seen by all people in the work area and should have an auxiliary power supply in the event electricity is affected.

Partial evacuation
In some cases when the emergency is very grave, total and immediate evacuation of all employees is necessary. In other emergencies, a partial evacuation of nonessential employees with a delayed evacuation of others may be necessary. Sometimes, only those employees in the immediate area of the emergency may be expected to evacuate or move to a safe area. Employees must be sure that they know what is expected of them in all such emergencies.

Refuge or safe area designation
The designation of refuge or safe areas for evacuation should be determined and identified in the EAP. In a building divided into fire zones by firewalls, the refuge area may still be within the same building, but in a different zone from where the emergency occurs.

Exterior refuge or safe area
Exterior refuge or safe areas may include parking lots, open fields, or streets which are located away from the site of the emergency and which provide sufficient space to accommodate the employees. Employees should be instructed to move away from the exit discharge doors of the building, and to avoid congregating close to the building where they may hamper emergency operations.

Employees with disabilities
Alternate methods of notification should be developed for visually or hearing impaired employees. EAPs must include evacuation procedures for mobility-impaired employees. Development and use of a "buddy system" will be incorporated into the EAP and also designation of areas of refuge.

Evacuation Plans, Continued

Evacuation wardens

The employer should ensure that an adequate number of employees are available at all times during working hours to act as evacuation wardens so that employees can be swiftly moved from the danger location to the safe areas. Generally, one warden for each twenty employees in the workplace should be adequate.

Warden duties after evacuation

After the desired degree of evacuation is completed, the wardens should be able to account for, or otherwise verify, that all employees are in the safe area.

The employer must ensure the availability of medical personnel for advice on matters of employee health. Even if a formal medical program does not exist, when health problems develop in the workplace, medical assistance will be made available to help resolve them.